

Claims

[c1] 1.A method for integrating heterogeneous processing systems, said method comprising the steps of:
requesting by a first one of a resource component and coordinator pair a first indicator indicating a first quality of service supported by a second one of said pair;
responding by said second one of said pair with said first indicator;
receiving by said first one of said pair said first indicator;
responsive to said first indicator, determining by said first one of said pair whether said first quality of service is acceptable;
responsive to said determining, offering by said first one of said pair to permit one of joining in coordination with said second one of said pair and not joining in coordination with said second of said pair;
responsive to said offering by said first one of said pair to permit joining in coordination with said second one of said pair, requesting by said second one of said pair a second indicator indicating a second quality of service acceptable to said first one of said pair;
responding by said first one of said pair with said second indicator;
receiving by said second one of said pair said second indicator;
responsive to said second indicator, determining by said second one of said pair to permit joining in coordination with said first one of said pair; and
responsive to determining by said second one of said pair to permit joining in coordination with said first one of said pair, determining a quality of service provision for said coordination.

[c2] 2.A method as claimed in claim 1, further comprising the step of having said first one of said pair comprises a resource component and said second one of said pair comprises a coordinator.

[c3] 3.A method as claimed in claim 2, further comprising the step of having said resource component comprises a resource manager.

[c4] 4.A method as claimed in claim 2, further comprising the step of having said resource component comprises a resource adapter.

[c5] 5.A method as claimed in claim 3, further comprising the step of having said resource manager comprises a database manager.

[c6] 6.A method as claimed in claim 3, further comprising the step of having said resource manager comprises an Enterprise Resource Planning system.

[c7] 7.A method as claimed in claim 2, further comprising the step of having said coordinator comprises a transaction manager.

[c8] 8.A method as claimed in claim 1, further comprising the step of having said first one of said pair comprises a coordinator and said second one of said pair comprises a resource component.

[c9] 9.A method as claimed in claim 8, further comprising the step of having said resource component comprises a resource manager.

[c10] 10.A method as claimed in claim 8, further comprising the step of having said resource component comprises a resource adapter.

[c11] 11.A method as claimed in claim 9, further comprising the step of having said resource manager comprises a database manager.

[c12] 12.A method as claimed in claim 9, further comprising the step of having said resource manager comprises an Enterprise Resource Planning system.

[c13] 13.A method as claimed in claim 1, further comprising the step of performing the previous steps at startup of a server.

[c14] 14.A method as claimed in claim 13, further comprising the step of: sending, by said server, a request to a first one of a resource and coordinator pair to initiate requesting said first indicator indicating a quality of service supported by a second one of resource and coordinator pairs.

[c15] 15.A method as claimed in claim 1, further comprising the step of having at least one of said first and said second qualities of service comprises a commit phase support.

[c16] 16.A method as claimed in claim 15, further comprising the step of having said

commit phase support comprises at least one of one phase commit support and two phase commit support.

- [c17] 17.A method as claimed in claim 1, further comprising the step of having at least one of said first and said second qualities of service comprises recovery support.
- [c18] 18.A method as claimed in claim 1, further comprising the step of having at least one of said resource component and coordinator pair comprises a platform-independent program code component.
- [c19] 19.A method as claimed in claim 1, further comprising the step of renegotiating a quality of service provision.
- [c20] 20.A computer program product comprising computer program code tangibly embodied in a signal bearing medium, said computer program code comprising instructions to, when loaded into a computer system and executed, cause said computer to perform the steps of:
 - requesting by a first one of a resource component and coordinator pair a first indicator indicating a first quality of service supported by a second one of said pair;
 - responding by said second one of said pair with said first indicator;
 - receiving by said first one of said pair said first indicator;
 - responsive to said first indicator, determining by said first one of said pair whether said first quality of service is acceptable;
 - responsive to said determining, offering by said first one of said pair to permit one of joining in coordination with said second one of said pair and not joining in coordination with said second of said pair;
 - responsive to said offering by said first one of said pair to permit joining in coordination with said second one of said pair, requesting by said second one of said pair a second indicator indicating a second quality of service acceptable to said first one of said pair;
 - responding by said first one of said pair with said second indicator;
 - receiving by said second one of said pair said second indicator;
 - responsive to said second indicator, determining by said second one of said pair

to permit joining in coordination with said first one of said pair; and responsive to determining by said second one of said pair to permit joining in coordination with said first one of said pair, determining a quality of service provision for said coordination.

- [c21] 21.A computer program product as claimed in claim 20, further comprising the step of having said first one of said pair comprises a resource component and said second one of said pair comprises a coordinator.
- [c22] 22.A computer program product as claimed in claim 21, further comprising the step of having said resource component comprises a resource manager.
- [c23] 23.A computer program product as claimed in claim 21, further comprising the step of having said resource component comprises a resource adapter.
- [c24] 24.A computer program product as claimed in claim 22, further comprising the step of having said resource manager comprises a database manager.
- [c25] 25.A computer program product as claimed in claim 22, further comprising the step of having said resource manager comprises an Enterprise Resource Planning system.
- [c26] 26.A computer program product as claimed in claim 21, further comprising the step of having said coordinator comprises a transaction manager.
- [c27] 27.A computer program product as claimed in claim 20, further comprising the step of having said first one of said pair comprises a coordinator and said second one of said pair comprises a resource component.
- [c28] 28.A computer program product as claimed in claim 27, further comprising the step of having said resource component comprises a resource manager.
- [c29] 29.A computer program product as claimed in claim 27, further comprising the step of having said resource component comprises a resource adapter.
- [c30] 30.A computer program product as claimed in claim 28, further comprising the step of having said resource manager comprises a database manager.

[c31] 31.A computer program product as claimed in claim 28, further comprising the step of having said resource manager comprises an Enterprise Resource Planning system.

[c32] 32.A computer program product as claimed in claim 20, further comprising the step of having the computer program code being executed at startup of a server.

[c33] 33.A computer program product as claimed in claim 32, further comprising instructions to, when loaded into a computer system and executed, cause said computer to perform the step of:
sending, by said server, a request to a first one of a resource and coordinator pair to initiate requesting said first indicator indicating a quality of service supported by a second one of resource and coordinator pairs.

[c34] 34.A computer program product as claimed in claim 20, further comprising the step of having at least one of said first and said second qualities of service comprises a commit phase support.

[c35] 35.A computer program product as claimed in claim 34, further comprising the step of having said commit phase support comprises at least one of one phase commit support and two phase commit support.

[c36] 36.A computer program product as claimed in claim 20, further comprising the step of having at least one of said first and said second qualities of service comprises recovery support.

[c37] 37.A computer program product as claimed in claim 20, further comprising the step of having at least one of said resource component and coordinator pair comprises a platform-independent program code component.

[c38] 38.A computer program product as claimed in claim 20, further comprising the step of renegotiating a quality of service provision.

[c39] 39.Apparatus for integrating heterogeneous processing systems, said apparatus comprising:
a first requestor for requesting by a first one of a resource component and

coordinator pair a first indicator indicating a first quality of service supported by a second one of said pair;
a first responder for responding by said second one of said pair with said first indicator;
a receiver for receiving by said first one of said pair said first indicator;
a determining element being responsive to said first indicator, for determining by said first one of said pair whether said first quality of service is acceptable;
an offering element being responsive to said determining, for offering by said first one of said pair to permit one of joining in coordination with said second one of said pair and not joining in coordination with said second of said pair;
a second requestor being responsive to said offering by said first one of said pair to permit joining in coordination with said second one of said pair, for requesting by said second one of said pair a second indicator indicating a second quality of service acceptable to said first one of said pair;
a second responder for responding by said first one of said pair with said second indicator;
a second receiver for receiving by said second one of said pair said second indicator;
a second determining element being responsive to said second indicator, for determining by said second one of said pair to permit joining in coordination with said first one of said pair; and
a third determining element being responsive to determining by said second one of said pair to permit joining in coordination with said first one of said pair, for determining a quality of service provision for said coordination.

- [c40] 40. Apparatus as claimed in claim 39, wherein said first one of said pair comprises a resource component and said second one of said pair comprises a coordinator.
- [c41] 41. Apparatus as claimed in claim 40, wherein said resource component comprises a resource manager.
- [c42] 42. Apparatus as claimed in claim 40, wherein said resource component comprises a resource adapter.

[c43] 43.Apparatus as claimed in claim 41, wherein said resource manager comprises a database manager.

[c44] 44.Apparatus as claimed in claim 41, wherein said resource manager comprises an Enterprise Resource Planning system.

[c45] 45.Apparatus as claimed in claim 40, wherein said coordinator comprises a transaction manager.

[c46] 46.Apparatus as claimed in claim 39, wherein said first one of said pair comprises a coordinator and said second one of said pair comprises a resource component.

[c47] 47.Apparatus as claimed in claim 46, wherein said resource component comprises a resource manager.

[c48] 48.Apparatus as claimed in claim 46, wherein said resource component comprises a resource adapter.

[c49] 49.Apparatus as claimed in claim 47, wherein said resource manager comprises a database manager.

[c50] 50.Apparatus as claimed in claim 47, wherein said resource manager comprises an Enterprise Resource Planning system.

[c51] 51.Apparatus as claimed in claim 39, further comprising:
a sender for sending, by said server, a request to a first one of a resource and coordinator pair to initiate requesting said first indicator indicating a quality of service supported by a second one of resource and coordinator pairs.

[c52] 52.Apparatus as claimed in claim 39, wherein at least one of said first and said second qualities of service comprises a commit phase support.

[c53] 53.Apparatus as claimed in claim 52, wherein said commit phase support comprises at least one of one phase commit support and two phase commit support.

[c54] 54.A method as claimed in claim 39, wherein at least one of said first and said

second qualities of service comprises recovery support.

- [c55] 55.Apparatus as claimed in claim 39, wherein at least one of said resource component and coordinator pair comprises a platform-independent program code component.
- [c56] 56.Apparatus as claimed in claim 39, wherein a quality of service provision is renegotiated.